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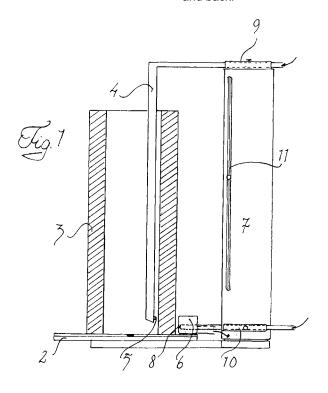
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### (54) Cleaning device for filters

(57) Cleaning device for filter that includes, opposite each other located, a blowing orifice for air and a suction orifice for air with an intermediate distance that a allows the insertion of a filter (3) that is to be cleaned therebetween. The orifices are moveable in the height direction up and down. The filter (3) that is to be cleaned is put on a rotatable table (2) with the blowing orifice (5) on the

inside and a suction box (6) or suction orifice on the outside of the filter. An eccentrically suspended ratchet (12) is arranged on the suction orifice and has such a length that it in the proximity of an end position for this up and down going movement is brought in contact with the table (2) coated with a rubber disc so that the table is turned together with the filter, a step at each movement forth and back.





## **EUROPEAN SEARCH REPORT**

Application Number EP 08 44 5019

<u>.                                     </u>	Citation of document with in	dication where app	ropriate	T B	elevant	CLASSIFICATION OF THE	
Category	of relevant passa				claim	APPLICATION (IPC)	
X	US 4 842 624 A (BAR 27 June 1989 (1989- * column 1, lines 5 * column 2, line 5 * claims 1,3,4,6,7, * * figures 1-16 *	06-27) -10 * - column 8,	line 57 *	1-3	3,6	INV. B01D41/04 B08B5/02 B08B15/04	
Υ	US 5 584 900 A (ZAI AL) 17 December 199 * column 1, lines 6 * column 2, line 16 * column 5, line 20 * claims 1-18 * * figures 1-12 *	6 (1996-12-1 5-8 * 5 - column 4,	l7)		2,4-7		
Y	US 3 066 688 A (WIL 4 December 1962 (19 * column 1, lines 1 * column 4, line 45 * claims 1,14,16,17 * figures 1,2 *	62-12-04) 1-13 * 5 - column 7,	-	1,2	2,4-7	TECHNICAL FIELDS SEARCHED (IPC)	
Y	US 5 143 529 A (MEA [US]) 1 September 1 * column 1, lines 5 * column 2, line 12 * claims 1-20 * * figures 1-10 *	.992 (1992-09 5-8 *	9-01)	1-7	7	B01D B08B	
Υ	US 3 840 402 A (TOB 8 October 1974 (197 * column 1, lines 1 * column 2, lines 1 * column 4, line 48 figures 1-9 *	4-10-08) 1-52 * 8-26 *	, line 43; -/	1-7	7		
	The present search report has b	peen drawn up for al	l claims				
	Place of search	·	mpletion of the search	Н.		Examiner	
		19 De	·			och, Christian	
X : part Y : part docu A : tech	ATEGORY OF CITED DOCUMENTS icularly relevant if taken alone icularly relevant if combined with another intent of the same category nological background written disclosure	ner	T: theory or principl E: earlier patent do after the filing dat D: document cited i L: document cited for	cument e n the a or othe	rlying the ir t, but publis pplication r reasons	ivention hed on, or	

EPO FORM 1503 03.82 (P04C01)



# **EUROPEAN SEARCH REPORT**

Application Number EP 08 44 5019

	DOCUMENTS CONSID	ERED TO BE RELEVANT		
Category		ndication, where appropriate,	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
Υ	[US] ET AL) 3 June * paragraphs [0003] [0050] - [0066] * * claims	STREICHSBIER MICHAEL 2004 (2004-06-03) , [0028] - [0040], 31,33,38-48,59-61,64-68	1,4-7	
Y	15 October 1998 (19 * column 1, lines 3	3-7 * 3 - column 3, line 38 *	1,4-7	
				TECHNICAL FIELDS SEARCHED (IPC)
	The present search report has	been drawn up for all claims		
	Place of search	Date of completion of the search		Examiner
	The Hague	19 December 2008	Pso	ch, Christian
X : parti Y : parti docu A : tech O : non-	ATEGORY OF CITED DOCUMENTS cularly relevant if taken alone cularly relevant if combined with anot ment of the same category nological background written disclosure mediate document	T : theory or principle E : earlier patent door after the filing date b : dooument cited in L : dooument oited for	underlying the in ument, but publish the application rother reasons	nvention shed on, or

EPO FORM 1503 03.82 (P04C01)

#### ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 08 44 5019

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

19-12-2008

AU 656548 B2 09-02-19 AU 9105191 A 08-07-19 CA 2098015 A1 14-06-19 DE 69116384 D1 22-02-19 DE 69116384 T2 23-05-19 EP 0563154 A1 06-10-19 JP 7507226 T 10-08-19 MX 9102447 A1 01-06-19 W0 9210268 A1 25-06-19  US 3840402 A 08-10-1974 NONE  US 2004103788 A1 03-06-2004 US 2006248864 A1 09-11-20	US 5584900 A 17-12-1996 NONE  US 3066688 A 04-12-1962 NONE  US 5143529 A 01-09-1992 AT 132767 T 15-01-199		Patent document ed in search report		Publication date		Patent family member(s)		Publication date
US 5584900 A 17-12-1996 NONE  US 3066688 A 04-12-1962 NONE  US 5143529 A 01-09-1992 AT 132767 T 15-01-19	US 5584900 A 17-12-1996 NONE  US 3066688 A 04-12-1962 NONE  US 5143529 A 01-09-1992 AT 132767 T 15-01-199		4842624	Α	27-06-1989	NONE			'
US 5143529 A 01-09-1992 AT 132767 T 15-01-19	US 5143529 A 01-09-1992 AT 132767 T 15-01-1992 AU 656548 B2 09-02-1993 AU 9105191 A 08-07-1993 CA 2098015 A1 14-06-1993 DE 69116384 D1 22-02-1993 DE 69116384 T2 23-05-1993 DE 69116384 T2 23-05-1993 DF 7507226 T 10-08-1993 DF 7507226 T 10-08-1993 WO 9210268 A1 25-06-1993 WO 9210268 A1 25-06-1993 US 3840402 A 08-10-1974 NONE		5584900	Α	17-12-1996	NONE			
AU 656548 B2 09-02-19 AU 9105191 A 08-07-19 CA 2098015 A1 14-06-19 DE 69116384 D1 22-02-19 DE 69116384 T2 23-05-19 EP 0563154 A1 06-10-19 JP 7507226 T 10-08-19 MX 9102447 A1 01-06-19 W0 9210268 A1 25-06-19  US 3840402 A 08-10-1974 NONE  US 2004103788 A1 03-06-2004 US 2006248864 A1 09-11-20	AU 656548 B2 09-02-199 AU 9105191 A 08-07-199 CA 2098015 A1 14-06-199 DE 69116384 D1 22-02-199 DE 69116384 T2 23-05-199 EP 0563154 A1 06-10-199 JP 7507226 T 10-08-199 MX 9102447 A1 01-06-199 W0 9210268 A1 25-06-199 US 3840402 A 08-10-1974 NONE US 2004103788 A1 03-06-2004 US 2006248864 A1 09-11-200	US	3066688	Α	04-12-1962	NONE			
US 2004103788 A1 03-06-2004 US 2006248864 A1 09-11-20	US 2004103788 A1 03-06-2004 US 2006248864 A1 09-11-200	US	5143529	A	01-09-1992	AU CA DE DE EP JP MX	656548 9105191 2098015 69116384 69116384 0563154 7507226 9102447	B2 A A1 D1 T2 A1 T	15-01-199 09-02-199 08-07-199 14-06-199 22-02-199 23-05-199 06-10-199 10-08-199 25-06-199
		US	3840402	Α	08-10-1974	NONE			
DF 19714790 A1 15-10-1998 NONF	DE 19714790 A1 15-10-1998 NONE	US	2004103788	A1	03-06-2004	US	2006248864	A1	09-11-200
22 25.21.50 /12 20 20 2550 110112		DE.	19714790	A1	15-10-1998	NONE			

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82